32. (New) The apparatus of claim 16 further comprising means for converting the data according to a time division multiplexed (TDM) protocol and the data according to a second protocol to an internal cell format for transmission over the backplane.

REMARKS

Applicants respectfully request reconsideration of the present U.S. Patent application. Claims 1 have been amended. Claims 2, 7 and 12 have been canceled without prejudice. Claims 16-32 have been added. Thus, claims 1, 3-6 and 8-10 and 13-32 are pending.

Drawings

The drawings were objected to for ingress TSM block 220 not being labeled. Corrected drawings are submitted herewith. Applicants therefore request that the objection to the drawings be withdrawn.

Claim Rejections - 35 U.S.C. § 102(e)

Claims 1-15 were rejected as being anticipated by U.S. Patent No. 6,259,699 issued to Opalka, et al. (*Opalka*). Claims 2, 7 and 12 have been canceled without prejudice. Therefore, the rejection of claims 2, 7 and 12 as being anticipated by *Opalka* is moot. For at least the reasons set forth below, Applicants submit that claims 1, 3-15 are not anticipated by *Opalka*.

Claim 1 recites the following:

> a plurality of interface cards coupled to the backplane via an interface, the interface cards coupled to receive multiple channels of network traffic from external sources, the plurality of interface cards to receive one or more channels of data according to a time division multiplexed (TDM) protocol and one or more channels of data according

to a second protocol, the interface cards to route the channels of data over the backplane to one or more predetermined interface cards.

Thus, Applicants claim routing both TDM channels and data channels between interface cards. Claim 6 similarly recites routing both TDM channels and data channels between interface cards.

Opalka discloses a switch that operates simultaneously with variable-length data packets (e.g., IP) and fixed-length data cells (e.g., ATM). See col. 3, lines 63-65. *Opalka* discloses a TDM-like switching scheme for packets and cells. See col. 22, lines 5-9. Figure 3 provides a TDM data stream for comparison purposes. See col. 10, lines 25-31. However, *Opalka* does not disclose switching of TDM data along with data cells or packets. Therefore, *Opalka* does not anticipate the invention as claimed in claims 1 and 6.

Claims 3-5, 20-25 and 29 depend from claim 1. Claims 8-10, 26-28 and 30 depend from claim 6. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 3-5, 8-10 and 20-30 are not anticipated by *Opalka* for at least the reasons set forth above.

Claim 11 recites the following:

> receiving multiple channels of network traffic from external sources via a network interface of an interface card, wherein the multiple channels of network traffic to include one or more channels of data according to a time division multiplexed (TDM) protocol and one or more channels of data according to a second protocol;
>
> routing the channels of data via a backplane connection to one or more predetermined destinations.

Thus, Applicants claim routing both TDM channels and data channels between interface cards. New claim 16 is a means-plus-function and recites means for routing both TDM channels and data channels between interface cards

As mentioned above, *Opalka* does not discloses routing both TDM channels and data channels between interface cards. Therefore, *Opalka* does not anticipate the invention as claimed in claims 11 and 16.

Claims 13-15 and 31 depend from claim 11. Claims 17-19 and 32 depend from claim 16. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 13-15, 17-19, 31 and 32 are not rendered obvious by *Opalka* for at least the reasons set forth above.

Conclusion

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, claims 1, 3-6 and 8-10 and 13-32 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
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Date: Aug 20, 2002

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MARKED VERSION OF THE AMENDMENTS

IN THE SPECIFICATION

In paragraph 0013 on page 6:

> Time Slot Manager (TSM) 120 receives and transmits frames of data from and to physical layer framer 110 and routes the data between physical layer framer 110 the appropriate serializer/deserializer (SERDES). TSM 120 also schedules the transmission of data based on, for example, data type, available bandwidth and/or other considerations. Data scheduling is described in greater detail in U.S. Patent application number 09/872,125 [09/XXX,XXX (Atty. Docket No. P013)], filed May 31, 2001 [_____], and entitled "DISTRIBUTED CONTROL OF DATA FLOW IN A NETWORK SWITCH, " which is assigned to the corporate assignee of the present U.S. Patent application and incorporated by reference herein.

In paragraph 0041 on page 13:

> Because each ingress card is coupled to each egress card, the interconnection between the ingress cards and the egress cards has n^2 connections where n is the number of ingress/egress cards. Thus, the interconnection is referred to as an "n^2 mesh," or an "n^2 switching fabric." The mesh is described in greater detail in U.S. Patent application number 09/746,212 [_____], entitled "A FULL MESH INTERCONNECT BACKPLANE ARCHITECTURE," filed December 22, 2000, which is assigned to the corporate assignee of the present application and incorporated by reference.

In paragraph 0042 on page 13:

> In one embodiment, each backplane link between an ingress interface card and an egress interface card can carry up to 48 STS-1 channels. As mentioned above, in one embodiment, each interface card includes 20 ingress TSIs. Thus, the bandwidth provided by a 20 TSI interface card is 960 STS-1 channels. By changing the number of TSIs and the number of interconnections across the backplane, the number of STS-1 channels supported can be modified. A protocol for use in communicating over the mesh is described in greater detail in U.S. Patent application number 09/745,982 [(P005) _____], entitled "A BACKPLANE PROTOCOL," filed December 22, 2000, which is assigned to the corporate assignee of the present invention and incorporated by reference.

IN THE CLAIMS

1. (Amended) A network switch comprising:

a backplane; and

a plurality of interface cards coupled to the backplane via an interface, the interface cards coupled to receive multiple channels of network traffic from external sources, the plurality of interface cards to receive one or more channels of data according to a time division multiplexed (TDM) [first] protocol and one or more channels of data according to a second protocol, the interface cards to route the channels of data over the backplane to one or more predetermined interface cards.

6. (Amended) An interface card for use in a network switch, the interface card comprising:

a backplane interface to transmit and receive data over a backplane;

a network interface to transmit and receive multiple channels of network traffic from external sources, the multiple channels of network traffic to include one or more channels of data according to a time division multiplexed (TDM) [first] protocol and one or more channels of data according to a second protocol; and

a time slot management circuit coupled between the backplane interface and the network interface, the time slot management circuit to route the channels of data over the backplane to one or more predetermined destinations.

11. (Amended) A method comprising:

receiving multiple channels of network traffic from external sources via a network interface of an interface card, wherein the multiple channels of network traffic to include one or more channels of data according to a time division multiplexed (TDM) [first] protocol and one or more channels of data according to a second protocol; and

routing the channels of data via a backplane connection to one or more predetermined destinations.